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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,158	10/29/2003	Sy Wiley	025651-00002	7125

4372 7590 05/12/2005

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EXAMINER

NGUYEN, TRINH T

ART UNIT PAPER NUMBER

3644

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,158

Applicant(s)

WILEY ET AL.

Examiner

Trinh T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment dated 03 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (as set forth in Figures 1, 2, 3A, 3B, 4, 5, and paragraphs [0003] to [0028] in the specification; hereinafter is referred to as AAPA) in view of Hussein et al. (US 6,845,716) (please see Figures 1, 2, 3A, and 3B of AAPA attached at the end of this Office Action for further explanation regarding to claims 8-15).

AAPA discloses a lead-free cartridge case capable of holding a bullet having a cannellure formed along an outer circumferential surface of a body of the bullet, the cartridge case comprising:

a cylindrical body having a front end and a rear end opposite the front end; a mouth defined by the front end of the body;

engaging means for engaging the bullet, the engaging means being disposed along a perimeter of the mouth;

a groove formed along an outer circumferential surface of the body in a vicinity of the rear end of the body;

a web extending radially inward relative to the body and disposed intermediate the groove and the mouth, wherein the web separates a bullet holding chamber located

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on a front end side of the web from a primer holding chamber located on a rear end side of the web; and

walls of the body which define the bullet holding chamber and are bendable in a direction toward and away from a longitudinal axis of the body, wherein the engaging means are configured to snap fit the cannellure of the bullet.

AAPA lacks having the cartridge case comprises a cylindrical body manufactured from a composite polymer.

Husseini et al. teach a similar ammunition as that of AAPA in which Husseini et al.'s ammunition comprises a cartridge casing body (23) manufactured from a composite polymer (see lines 10-20 of col. 5). It would have been obvious to one having ordinary skill in the art to have modified the cartridge case of AAPA so as to include the cartridge case made out of composite polymer, in a similar manner as taught in Husseini et al., since to do so would increase the overall elastic response of the ammunition which can be freely used at firing ranges.

For claim 9, AAPA further discloses the walls defining the bullet holding chamber include tapered walls arranged oblique relative to the longitudinal axis of the body and straight walls arranged parallel relative to the longitudinal axis of the body, wherein the tapered walls taper away from the longitudinal axis of the body in a direction from the rear end to the front end of the body and transition to the straight walls at a blend point.

For claim 10, AAPA further discloses the engaging means include a lip lock having either one of an asymmetrical configuration or a symmetrical configuration.

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For claim 11, AAPA further discloses the lip lock includes a base portion parallel relative to the longitudinal axis of the body and coinciding with the outer surface of the body, a tapered portion arranged oblique relative to the longitudinal axis of the body, and an engaging portion, wherein the engaging portion is configured to fit within the cannellure of the bullet.

For claim 12, AAPA further discloses the engaging portion is either one of parallel or oblique relative to the base portion.

For claim 13, AAPA further discloses the groove defines a rim at the rear end of the body and wherein an outer diameter of the rim is equal to or less than an outer diameter of the rear end of the body

For claim 14, AAPA further discloses the groove defines a rim at the rear end of the body and wherein an outer diameter of the rim is equal to or greater than an outer diameter of the rear end of the body.

For claim 15, AAPA further discloses a flash hole provided in the web, wherein the bullet holding chamber communicates with the primer holding chamber through the flash hole.

3. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (as set forth in Figures 1, 2, 3A, 3B, 4, 5, and paragraphs [0003] to [0028] in the specification; hereinafter is referred to as AAPA) in view of Hussein et al. (US 6,845,716), and further in view of West et al. (US 5,616,642).

As described above, AAPA as modified by Hussein et al. discloses most of the claimed invention except for indicating that the composite polymer includes a tungsten

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metal powder, nylon 6/6, nylon 6, glass fibers, and optionally additives and/or stabilizers.

West et al. teach that it is old and well known in the art of manufacturing ammunition to use composite polymer such as those composite polymers having a tungsten metal powder, nylon 6/6, nylon 6, glass fibers, and optionally additives and/or stabilizers, in order to reduce and/or eliminate lead (which was used in conventional ammunition) pollution. It would have been obvious to one having ordinary skill in the art to have modified the ammunition of AAPA as modified by Hussein et al. so as to include the use of the specific composite polymer, as taught in West et al., since to do so would reduce and/or eliminate lead pollution.

Conclusion

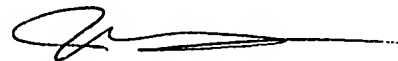
4. Applicant's arguments with respect to claims 8-16 have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T Nguyen whose telephone number is (703) 306-9082. The examiner can normally be reached on M-F (9:30 A.M to 6:00 P.M).

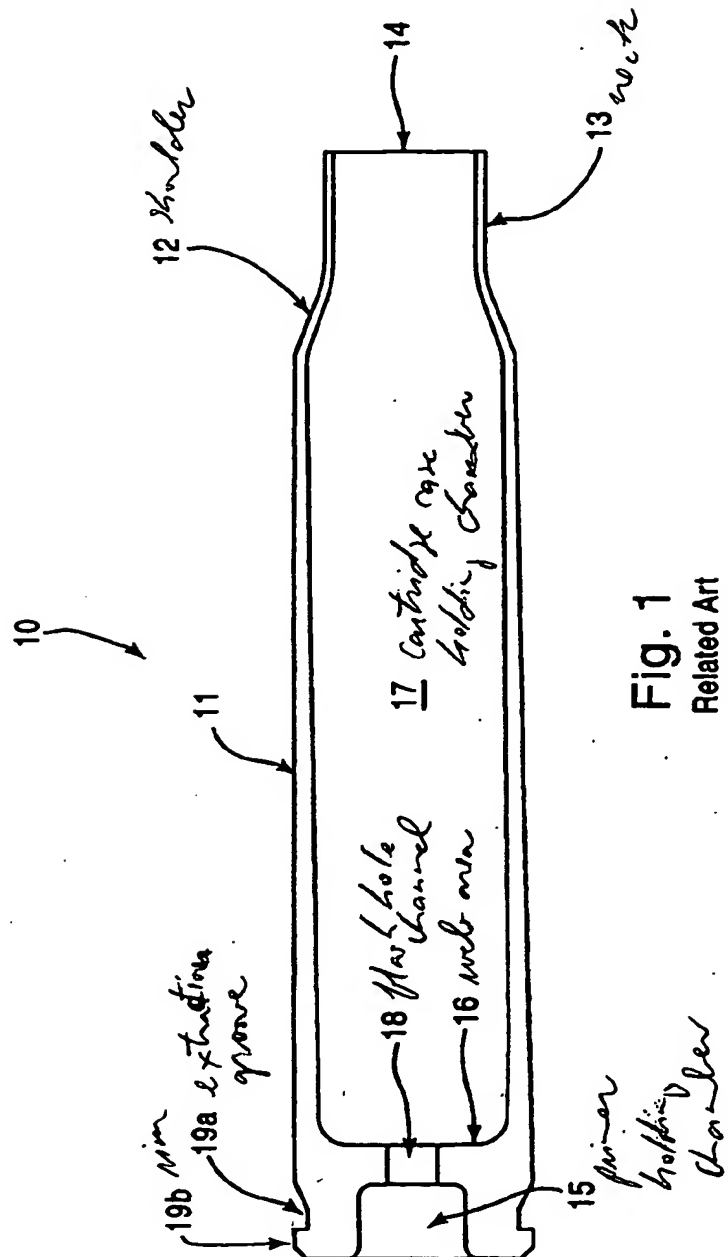
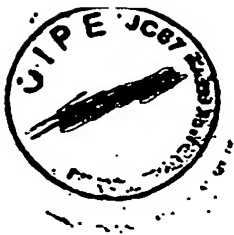
The examiner's supervisor, Teri Luu can be reached on (703) 305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Trinh T Nguyen
Patent Ex.
Art Unit 3644
5/7/05



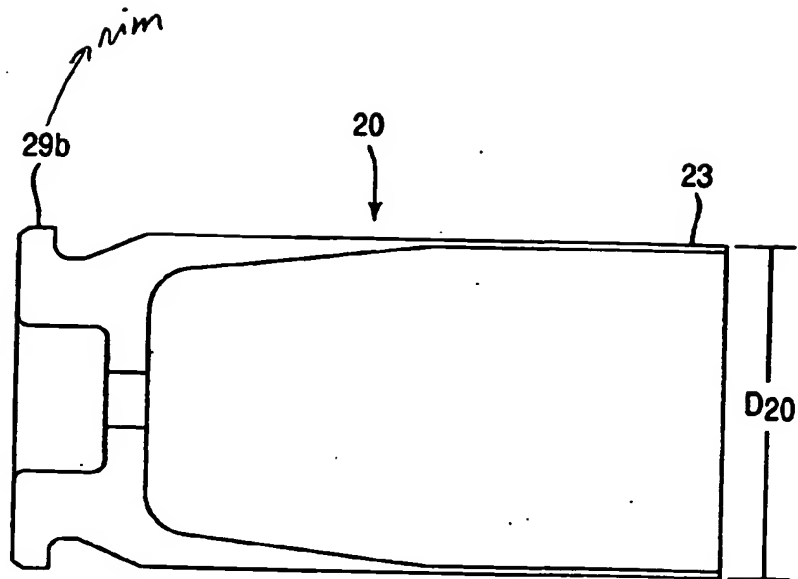


Fig. 2
Related Art

